OVERVIEW

The TCP (Thin Concrete Pavement) system was successfully utilized for this heavy truck-traffic pavement project in Ft. Worth, TX. The TCP process is a simple yet patented pavement method developed over 10 years ago by Juan Pablo Torres and Juan Pablo Covarrubias, both civil engineers from Chile. Essentially, the method reduces pavement thicknesses by shrinking the individual pavement panel sizes and thereby reducing the potential axle load on any single panel. The ultimate benefits of shorter panels include reduced curling and lower costs for these considerably thinner pavements.

This first U.S. application of TCP involved over 100,000 sq. ft. of 4 in. thin pavement for the Fricks Pallet Company. Even with expected heavy truck-traffic loading, the thin design was jointed into 6 ft. square panels, thereby minimizing traffic loading on any single panel. For added residual strength and toughness, the 4,000 psi concrete mix also contained 3.0 lbs. / cu. yd. of the 2-1/4" long FORTA-FERRO®. The high-strength three-dimensional fibers work well with the TCP system by aiding in the reduction of shrinkage and curling, while not compromising the aesthetics and surface finish. The concrete contractor, The Fricks Company, anticipates a rapid growth and use of the fiber-reinforced TCP regimen in the U.S., and plans to use this project site as a viable reference example of this unique yet logical pavement system. For TCP design-build guidance for up-coming pavement projects, visit www.fricksco.com.

ADVANTAGES

- Impact Resistant
- Reduced Curling & Shrinkage
- Lower Costs